

# SAC-3P-10,0-680/M8FR FDN - Sensor/actuator cable



1096077

<https://www.phoenixcontact.com/us/products/1096077>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Sensor/actuator cable, 3-position, PVC, gray, shielded, free cable end, on Socket angled M8, coding: A, cable length: 10 m, Foil shielding plus drain wire

## Commercial data

Item number	1096077
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF13
Product key	AF1IEE
GTIN	4055626930282
Weight per piece (including packing)	22.22 g
Weight per piece (excluding packing)	22.22 g
Customs tariff number	85444290
Country of origin	US

1096077

<https://www.phoenixcontact.com/us/products/1096077>

## Technical data

### Product properties

Product type	Sensor/actuator cable
Application	Standard, U.S. cables
Number of positions	3
No. of cable outlets	1
Shielded	yes
Coding	A

### Insulation characteristics

Overvoltage category	II
Degree of pollution	3

### Material specifications

Flammability rating according to UL 94	HB
Seal material	NBR
Material of grip body	TPU, hardly inflammable, self-extinguishing
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Material for screw connection	Zinc die-cast, nickel-plated

### Electrical properties

Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage $U_N$	48 V AC
	60 V DC
Nominal current $I_N$	4 A

### Mechanical properties

#### Mechanical data

Insertion/withdrawal cycles	$\geq 100$
-----------------------------	------------

### Signaling

Status display	no
Status display present	no

### Connection data

#### Conductor connection

Tightening torque	0.2 Nm (M8 connectors)
-------------------	------------------------

### Connector

#### Connection 1

# SAC-3P-10,0-680/M8FR FDN - Sensor/actuator cable



1096077

<https://www.phoenixcontact.com/us/products/1096077>

Type	free cable end
------	----------------

## Connection 2

Type	Socket angled M8
Number of positions	3
Coding type	A

## Cable/line

Cable length	10 m
Dimensional drawing	
Cable weight	26.04 kg/km
UL AWM Style	2517 (105 °C / 300 V)
Number of positions	3
Shielded	yes
AWG signal line	24
Wire diameter incl. insulation	1.12 mm ±0.03 mm
External cable diameter	4.17 mm ±0.2 mm
Outer sheath, material	PVC
External sheath, color	gray
Conductor material	Tin-plated Cu litz wires
Material wire insulation	PVC (Signal line)
Single wire, color	brown, blue, black
Type of pair shielding	Plastic-coated aluminum foil, aluminum side inside
Overall twist	Conductors, fillers, and drain wire are twisted with left-hand lay
Max. conductor resistance	max. 80.2 Ω/km (20 °C)
Insulation resistance	≥ (550 M Ohms/m @ 500V)
Nominal voltage, cable	300 V
Minimum bending radius, flexible installation	8 x D
Smallest bending radius, movable installation	34 mm
Flame resistance	FT4
Other resistance	UV resistant
Ambient temperature (operation)	-30 °C ... 105 °C (cable, fixed installation)

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP65
	IP67

# SAC-3P-10,0-680/M8FR FDN - Sensor/actuator cable



1096077

<https://www.phoenixcontact.com/us/products/1096077>

	IP68
Ambient temperature (operation) (male connector/female connector)	-25 °C ... 90 °C (Plug / socket)
Ambient temperature (operation) (Cable, fixed installation)	-40 °C ... 80 °C (cable, fixed installation)
Ambient temperature (operation) (Cable, flexible installation)	-5 °C ... 80 °C (Cable, flexible installation)

## Standards and regulations

Standard designation	M8 connector
Standards/specifications	IEC 61076-2-104

# SAC-3P-10,0-680/M8FR FDN - Sensor/actuator cable

1096077

<https://www.phoenixcontact.com/us/products/1096077>

## Drawings

Dimensional drawing



Socket M8 x 1, angled

Schematic diagram



Pin assignment M8 socket, 3-pos., view female side

# SAC-3P-10,0-680/M8FR FDN - Sensor/actuator cable



1096077

<https://www.phoenixcontact.com/us/products/1096077>

Circuit diagram



Contact assignment of M8 plugs/sockets

# SAC-3P-10,0-680/M8FR FDN - Sensor/actuator cable



1096077

<https://www.phoenixcontact.com/us/products/1096077>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1096077>

 <b>UL Listed</b> Approval ID: FILE E 221474				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
keine				
	60 V	4 A	-	-

 <b>cUL Listed</b> Approval ID: FILE E 221474				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
keine				
	60 V	4 A	-	-

# SAC-3P-10,0-680/M8FR FDN - Sensor/actuator cable



1096077

<https://www.phoenixcontact.com/us/products/1096077>

## Classifications

### ECLASS

ECLASS-13.0	27060311
ECLASS-15.0	27060311

### ETIM

ETIM 10.0	EC001855
-----------	----------

### UNSPSC

UNSPSC 21.0	31251501
-------------	----------

# SAC-3P-10,0-680/M8FR FDN - Sensor/actuator cable



1096077

<https://www.phoenixcontact.com/us/products/1096077>

## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
---	--------------------

### China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
-------------------------------------	----------------------------

Phoenix Contact 2026 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)